

TECHNICAL DATA SHEET

One Coat DPM

Surface Damp Proof Membrane – Epoxy Based

- 2 component, solvent free, One Coat DPM
- Suitable for use on surfaces with a moisture reading of up to 97% RH
- Can be installed where no structural DPM is present (2 coats)
- Suitable for use over underfloor heating systems
- High bond strength to various substrates
- Ideal for use on Anhydrite / Calcium Sulphate screeds
- Supplied in convenient easy to use packaging







TILEMASTER ONE COAT DPM Surface Damp Proof Membrane – Epoxy Based

DESCRIPTION:

Tilemaster One Coat DPM is a two component, solvent free, one coat epoxy Damp Proof Membrane. One Coat DPM is suitable for use on a wide range of substrates including concrete, sand/cement screeds, anhydrite and calcium sulphate screeds. The product is ideal for use as a damp proof membrane where the residual moisture content in a new or existing screed is up to 97% relative humidity (RH). One Coat DPM can also be used to deal with damp substrates where a structural damp proof membrane is not present or where the structural damp proof membrane is ineffective. Once cured, One Coat DPM produces a membrane which can accommodate hygrometer readings up to 97% RH on cement based screeds and 87% RH on anhydrite / calcium sulphate screeds without resulting in bond strength issues. One Coat DPM has effective resistance to water, grease, oil, dilute mineral and organic acids.

PLEASE NOTE: When applying One Coat DPM to a substrate where a structural damp proof membrane is not present or is ineffective, this product must be applied as a 2 coat system.

SUBSTRATES:

- ✓ Sand/Cement Screed
- Concrete
- ✓ Water/Wet System Underfloor Heating
- Existing Ceramic, Porcelain and Natural Stone Tiles
- Flooring Grade Asphalt & Bitumen
- Anhydrite / Calcium Sulphate Screeds
- Tile Backer Boards

PREPARATION:

Before starting, all substrates must be clean, structurally sound, free from surface water and free from any laitance, dust, dirt or other contaminants e.g. surface hardeners, curing membranes, which may affect adhesion. Any existing floor screeds that are not moisture tolerant must be removed before One Coat DPM is applied. Rough or uneven substrates can be pre-smoothed with Pro-Flow prior to the application of One Coat DPM.

Please Note: It is very important that Relative Humidity (RH) readings are taken prior to the application of One Coat DPM, in accordance with BS 8203 and BS 5325. The RH readings must be 97% RH or below.

One Coat DPM is suitable for use with underfloor heating systems, however the surface temperature should not exceed 27°C in accordance with BS 8203 and BS 5325. When applying One Coat DPM to new underfloor heated screeds, the underfloor heating must be commissioned prior to applying the product.

MIXING:

Bring both components to a temperature of approximately 15°C before use. Make several holes in the hollow lid with a large screwdriver or similar equipment and allow all the hardener to drain into the resin. After 2 minutes remove the lid. Mix both components for at least 2 minutes with a drill or similar, until an even colour is achieved. *Always mix full container quantities in order to maintain mix proportions.*

APPLICATION:

Apply one coat of mixed membrane with a V shaped notched trowel or a straight-edged trowel and then smooth out using a roller to ensure that the membrane is applied consistently, avoiding over application.

95 - 97% RH:

Apply one coat of mixed membrane with a V shaped notched trowel or a straight-edged trowel and then use a roller in order to evenly distribute and apply the mixed membrane. When rolling the product, please make sure that any trapped air / bubbles are released and also ensure that the surface finish is uniformed and free from pin-holes. Apply to a maximum coverage rate of $25m^2$. The coverage rate will depend on the porosity of the substrate and the site conditions.

Below 95% RH:

Apply one coat of mixed membrane with a V shaped notched trowel or a straight-edged trowel and then use a roller in order to evenly distribute and apply the mixed membrane. When rolling the product, please make sure that any trapped air / bubbles are released and also ensure that the surface finish is uniformed and free from pin-holes. Apply to a maximum coverage rate of 30m².

Up to 87% RH on Anhydrite / Calcium Sulphate Screeds:

Apply one coat of mixed membrane with a V shaped notched trowel or a straight-edged trowel and then use a roller in order to evenly distribute and apply the mixed membrane. When rolling the product, please make sure that any trapped air / bubbles are released and also ensure that the surface finish is uniformed and free from pin-holes. Apply to a maximum coverage rate of 25m².

Where no Damp Proof Course Currently Exists:

When applying One Coat DPM to a substrate where a structural damp proof membrane is not present or is ineffective, this product must be applied as a 2 coat system. Apply both coats to a coverage rate between $18 - 25m^2$ per 10kg unit. The coverage rate depends on the type and porosity of the substrate. The first coat must be left to fully cure before applying the second coat and the second coat must be applied at right angles to the first coat.

After applying One Coat DPM, the ideal outcome is a glossy, tack free and pin-hole free appearance. If the final appearance of the product after application is dull, this may indicate that the product has been absorbed into the substrate and therefore a second coat may be necessary. Likewise, if the final appearance shows signs of pin-holes then a second coat of One Coat DPM will be required.

DRYING TIME:

In ideal conditions, the applied DPM can be ready to receive a smoothing compound after as little as 16 hours drying time. In most cases however, the DPM should be left for a minimum of 24 hours before applying a smoothing compound. If the applied DPM is tacky, this indicates that the DPM has not fully cured and therefore additional curing time should be allowed before covering.



Tilemaster Adhesives Ltd. Unit 4, Tomlinson Point, Tomlinson Road, Leyland, Lancashire, PR25 2DY. Telephone: **0845 208 0040** Fax: **0845 208 0041** Technical: **01772 456831**

www.tilemasteradhesives.co.uk

TILEMASTER **ONE COAT DPM** Surface Damp Proof Membrane – Epoxy Based

SUBSTRATE PREPARATION GUIDE:

Concrete & Sand/Cement Screed: New screed must be allowed to dry for a minimum of 7 days. Remove any laitance from the surface mechanically and ensure that mould oil, curing agents and any other contaminants are removed. Remove all dust and dirt ideally by vacuum. The relative humidity of the screed must be 97% or below before the One Coat DPM can be applied. Apply One Coat DPM to achieve a glossy, tack free and pin-hole free appearance.

Anhydrite / Calcium Sulphate Screed: Anhydrite / Calcium Sulphate screeds must have a confirmed and consistent relative humidity (RH) reading taken from across the whole floor. The relative humidity must be 87% or below before the One Coat DPM can be applied. As an approximate guide for drying times, allow 1 day per mm up to an overall depth of 40mm and 2 days per mm for anything above 40mm. The drying of anhydrite / Calcium Sulphate screeds can be assisted by commissioning the underfloor heating system, for further information, please contact our Technical Helpline. All anhydrite / Calcium Sulphate screeds must be mechanically sanded/abraded in order to remove the laitance from the surface of the screed prior to the application of One Coat DPM. Apply One Coat DPM to achieve a glossy, tack free and pin-hole free appearance.

Power Floated Concrete: Ensure the surface has been allowed 7 days to cure. Power floated concrete can leave a loose top layer and/or laitance once it has cured. Remove the loose top layer and any laitance from the surface mechanically or by acid etching and remove all dust and particles ideally by vacuum. The relative humidity of the screed must be 97% or below before the One Coat DPM can be applied. Apply One Coat DPM to achieve a glossy, tack free and pin-hole free appearance.

Flooring Grade Asphalt/Bitumen: Ensure that the flooring grade asphalt/bitumen is in good condition and that there are no signs of debonding and/or hollowness. Make sure the surface is dry and free of any contaminants, loose dust or dirt. Apply One Coat DPM to achieve a glossy, tack free and pin-hole free appearance.

Existing Ceramic, Porcelain & Natural Stone Tiles: Ensure the surface is dry and free of any contaminants, loose dust or dirt. Existing tiles that have been previously treated with sealer must be sufficiently cleaned in order to remove any surface treatments. Apply One Coat DPM to achieve a glossy, tack free and pin-hole free appearance - please pay particular attention to the grouted joint to ensure that 100% coverage is achieved.

Underfloor Heating Systems / Screeds: The heating must be switched at least off 48 hours prior to application of the One Coat DPM to allow the substrate to cool sufficiently. The surface temperature of the screed should not exceed 27°C in accordance with BS 8203 and BS 5325.

Underfloor Heated Screeds should be commissioned prior to applying One Coat DPM and the final floor covering. Turn on the heating system at a low temperature and heat the screed gradually by no more than 5°C per day until a maximum temperature of 25°C is achieved. Maintain this temperature for 3 days and then switch the heating off 48 hours prior to covering to allow the substrate to cool sufficiently. Alternatively in cold conditions, reduce the temperature of the screed to below 15°C prior to covering.

When the final floor covering has been completed allow 1 week for full cure of the smoothing compound, flooring adhesive etc. before switching the heating on. When doing so, start with a low temperature and gradually increase the temperature on a daily basis by no more than 2°C per day.

Tile Backer Board: Ensure the surface is dry and free of any contaminants, loose dust or dirt. Apply One Coat DPM to achieve a glossy, tack free and pin-hole free appearance.

Colour	Straw / Amber
Coverage	Applications between 95 - 97% RH = $20 - 25m^2$ per 10kg unit Applications below 95% RH – $30m^2$ per unit
Working Time	Approximately 45 minutes at 20°C
Cure Time	Approximately 16 - 24 hours at 20°C
Application Temperature	Between 10 – 30⁰C
Shelf Life	18 months if stored in a sealed container, in frost free conditions
Pack Sizes	10kg & 3kg Metal Pails

HEALTH AND SAFETY

COMPONENT A (Resin): Signal Word DANGER

This product contains:

RESIN: Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin $Mg \le 700$, Oxiran, (vgl.Mono[(C12-14-alkyloxy)methylderivate)

Hazard statements

- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H317 May cause an allergic reaction.
- H411 Toxic to aquatic life with long lasting effects.

COMPONENT B (Hardener): Signal Word DANGER

This product contains: HARDENER: Benzyl alcohol, 3-aminomethyl-3, 5, 5-trimethylcyclohexylamine, 1, 3-Benzoldimethanamine, Benzyldimethylamine

Hazard statements

- H302 Causes skin irritation.
- H314 Causes serious eye irritation.
- H317 May cause an allergic reaction.
- H411 Toxic to aquatic life with long lasting effects.

Avoid contact with skin and eyes. During use wear appropriate PPE, including gloves and googles. Keep large working areas well ventilated at all times. For further information refer to the Material Safety Data Sheet.

Disposal: Once the mixed product has cured it is classed as non-hazardous and can be disposed of in normal waste streams. Dispose of empty packaging in accordance with local authority regulations.

The information contained on this spec sheet is given voluntarily and in good faith. It is to the best of our knowledge true and accurate; however it may contain information which is inappropriate under certain conditions of use. The company cannot accept responsibility for any loss or damage due to inappropriate use or the possibility of variations of working conditions and of workmanship outside our control.



Tilemaster Adhesives Ltd. Unit 4, Tomlinson Point, Tomlinson Road, Leyland, Lancashire, PR25 2DY. Telephone: 0845 208 0040 Fax: 0845 208 0041 Technical: 01772 456831